

Notice of Allowability

Application No.

09/918,258

Examiner

Glenn A. Auve

Applicant(s)

PACKWOOD ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed 8 April 2005.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☒ The drawings filed on 10 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

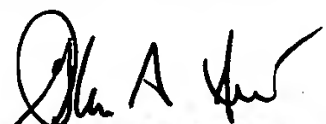
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |



Glenn A. Auve
Primary Patent Examiner
Technology Center 2100

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: independent claims 1, 13, and 23 have been amended to include the limitations of the first and second communications interface are coupled in parallel on the primary data bus such that the first or the second communications protocol can communicate directly on the primary data bus. These limitations in combination with the others in the claim are not shown by the prior art and do not appear to have been obvious. The previously cited reference to Emmert et al. shows an I/O device with USB and IEEE 1284 interfaces in parallel and coupled via a single connector to a host. However the memory and processor limitations are not present and the device is not a field device for use in a process control system. Similarly, the previously cited reference to Blair also shows a device with two interfaces, one USB and one a legacy interface such as RS232 or RS485. However there is no clear showing that these interfaces are coupled to a primary bus in parallel so they can communicate directly on the primary bus, and as above the device is not a field device for use in a process control system. Also, the previously cited reference to Krivoshein shows a system in which field devices of different types including HART, Fieldbus, Profibus, and AS-Interface, can be coupled to a network or primary bus via a controller. This is shown in fig.1, where the primary bus is labeled 16. The controller 20 includes a processor 24 and memory 26, however each different protocol's master is coupled via a separate direct connection to the controller. There is no clear teaching regarding the internal structure of the controller so there is no way to know whether there are multiple interfaces coupled to the primary bus 16 as claimed.

Independent claims 26 and 31 include the limitations of the processor is programmed to process the communications having the first protocol and the communications having the second protocol, the processor being further programmed to use the communications having

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the first protocol for process control and to use the communications having the second protocol for configuration of the field device. These limitations are not present in the prior art and do not appear to have been obvious.

Independent claims 29 and 32 include the limitations of the processor being programmed to process the communications having the first protocol and the communications having the second protocol, the first communications interface being further adapted to process communications having a first frequency band and the second communications interface is further adapted to process communications having a second frequency band different from the first frequency band. These limitations are not present in the prior art and do not appear to have been obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn A. Auve whose telephone number is (571) 272-3623. The examiner can normally be reached on M-F 8:00 AM-5:30 PM, every other Friday off.

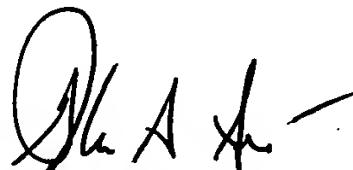
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Glenn A. Auve
Primary Examiner
Art Unit 2111

gaa
6 June 2005